

INFORMATION DISCLOSURE CITATION		Atty. Docket No.: 53415USA8C 038		Serial No.: 09/70748			
		Applicants(s): L. Charles Hall and David A. Kaisaki					
		Filing Date:		Group: 2826			
U.S. PATENT DOCUMENTS							
Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date Appropriate	
CME	1,910,444	05/23/33	Nicholson et al.	-	-		
CME	2,115,897	05/03/38	Wooddell et al.	51	188		
CME	2,286,208	06/16/42	Kirchner	51	197		
CME	2,485,295	10/18/49	Larson	206	56		
CME	2,667,436	01/26/54	Goepfert et al.	154	53.5		
CME	2,755,607	07/24/56	Haywood	51	185		
CME	2,888,785	06/02/59	Kellican et al.	51	185		
CME	2,952,951	09/20/60	Simpson	51	193		
CME	3,041,156	06/26/62	Rowse et al.	51	293		
CME	3,188,265	06/08/65	Charbonneau et al.	161	188		
CME	3,324,608	06/13/67	Hoenig	51	395		
CME	3,438,811	04/15/69	Harriman	134	2		
CME	3,499,250	03/10/70	E.W. Jensen et al.	51	109		
CME	3,504,457	04/07/70	H.R. Jacobsen et al.	51	131		
CME	3,594,865	07/27/71	Erb	18	5		
CME	3,605,349	09/20/71	Anthon	51	402		
CME	3,849,949	11/26/74	Steinhauser et al.	51	406		
CME	3,875,703	04/08/75	Clemente	51	170T		
CME	3,911,562	10/14/75	Youmans	29	590		
CME	3,916,584	11/04/75	Howard et al.	51	308		
CME	4,138,228	02/06/79	Hartfelt et al.	51	295		
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	SubClass	Translation	
						Yes	No
CME	0 447 885 A2	09/25/91	EPO	B24B	13/01		
CME	0 588 055 A2	03/23/94	EPO	H01L	21/304		
CME	0 616 362 A2	09/21/94	EPO	H01L	21/461		
CME	0 627 281 A2	12/07/94	EPO	B24D	7/06		
CME	0 418 039 B1	01/25/95	EPO	B24D	3/20		
CME	0 646 436 A1	04/05/95	EPO	B24B	9/06		
CME	0 650 803 A1	05/03/95	EPO	B24B	7/24		
OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)							
CME	Leidheiser, <i>The Corrosion of Copper, Tin and Their Alloys</i> , 118-123, 1971						
CME	West et al., <i>Copper and Its Alloys</i> , 25-30, 1982						
CME	Wefers et al., <i>Oxides and Hydroxides of Aluminum</i> , Alcoa Technical Paper No. 19, 1987						
CME	Tonshoff et al., "Abrasive Machine of Silicon", <i>Annals of the CIRP</i> , 39, 621-635 (1990)						
EXAMINER <i>C. Jueh</i>			Date Considered 7-6-03				
<small>*Examiner: Initial if reference considered; whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

INFORMATION DISCLOSURE CITATION		Atty. Docket No.: 53415USA8C.038 Applicants(s): L. Charles Hardy and David A. Kaisaki Filing Date:		Serial No.: 09/707,269 Group: 2825		
U.S. PATENT DOCUMENTS						
Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
CME	4,255,164	03/10/81	Butzke et al.	51	295	
CME	4,314,827	02/09/82	Leitheiser et al.	51	298	
CME	4,509,581	04/09/85	McLane et al.	164	479	
CME	4,512,113	04/23/85	Budinger	51	236	
CME	4,563,388	01/07/86	Bonk et al.	428	304.4	
CME	4,609,581	09/02/86	Ott	428	100	
CME	4,623,364	11/18/86	Cottringer et al.	51	309	
CME	4,642,126	02/10/87	Zador et al.	51	295	
CME	4,642,221	02/10/87	Hansen et al.	422	16	
CME	4,644,703	02/24/87	Kaczmarek et al.	51	401	
CME	4,652,274	03/24/87	Boettcher et al.	51	298	
CME	4,652,275	03/24/87	Bloecher et al.	51	298	
CME	4,671,851	06/09/87	Beyer et al.	156	645	
CME	4,735,632	04/05/88	Oxman et al.	51	295	
CME	4,744,802	05/17/88	Schwabel	51	309	
CME	4,749,617	06/07/88	Canty	428	332	
CME	4,751,138	06/14/88	Tumey et al.	428	323	
CME	4,770,671	09/13/88	Monroe et al.	51	293	
CME	4,773,920	09/27/88	Chasman et al.	51	295	
CME	4,799,939	01/24/89	Bloecher et al.	51	293	
CME	4,879,258	11/07/89	Fisher	437	225	
CME	4,881,951	11/21/89	Wood et al.	51	309	
FOREIGN PATENT DOCUMENTS						
Document Number	Date	Country	Class	SubClass	Translation	
					Yes	No
CME	0 650 807 A1	05/03/95	EPO	B24D 3/28		
CME	0 654 323 A1	05/24/95	EPO	B24D 3/34		
CME	0 658 400 A1	06/21/95	EPO	B24B 37/04		
CME	0 685 299 A1	12/06/95	EPO	B24B 37/04		
CME	0 737 549 A2	10/16/96	EPO	B24D 3/00		
CME	0 745 456 A1	12/04/96	EPO	B24B 9/06		
CME	63-235942	09/30/88	Japan (with English language abstract)	G03D 9/00		X
	0 634 465 A1	07/07/94	EPO	—		
OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)						
CME	Tomita et al., "A Study for Ultraprecision Processing of Silicon Wafers by Fixed Lapping Stone - A newly developed lapping stone to replace the free abrasive lapping process", <i>J. Precision Engineering</i> , 61, 1428-1432 (1995) - translation included					
CME	Kaufman et al, "Chemical-Mechanical Polishing for Fabricating Patterned W Metal Features as Chip Interconnects", <i>J. Electrochem. Soc.</i> , 138 (11), (1991)					
EXAMINER <i>C. Kuchel</i>			Date Considered <i>7-6-02</i>			
*Examiner: Initial if reference considered; whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						

INFORMATION DISCLOSURE CITATION	Atty. Docket No.: 53415USA8C.038	Serial No.: 09/707,269
	Applicants(s): L. Charles Hardy and	and A. Kaisaki
	Filing Date:	Group: 2825

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
CME	4,885,332	12/05/89	Bilkadi	524	714	
CME	4,903,440	02/27/90	Larson et al.	51	298	
CME	4,906,523	03/06/90	Bilkadi et al.	428	327	
CME	4,927,432	05/22/90	Budinger et al.	51	298	
CME	4,930,266	06/05/90	Calhoun et al.	51	293	
CME	4,933,234	06/12/90	Kobe et al.	428	336	
CME	4,944,836	07/31/90	Beyer et al.	156	645	
CME	4,950,696	08/21/90	Palazotto et al.	522	25	
CME	4,954,142	09/04/90	Carr et al.	51	309	
CME	4,959,265	09/25/90	Wood et al.	428	324	
CME	4,974,373	12/04/90	Kawashima et al.	51	295	
CME	4,985,340	01/15/91	Palazzotto et al.	430	270	
CME	4,997,461	03/05/91	Markhoff-Matheny et al.	51	295	
CME	5,009,675	04/23/91	Kunz et al.	51	295	
CME	5,011,508	04/30/91	Wald et al.	51	293	
CME	5,011,513	04/30/91	Zador et al.	51	295	
CME	5,014,468	05/14/91	Ravipati et al.	51	295	
CME	5,015,266	05/14/91	Yamamoto	51	293	
CME	5,020,283	06/04/91	Tuttle	51	209DL	
CME	5,061,294	10/29/91	Harmer et al.	51	295	
CME	5,077,870	01/07/92	Melbye et al.	24	452	
CME	5,085,671	02/04/92	Martin et al.	51	293	
CME	5,104,421	04/14/92	Takizawa et al.	51	295	

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	SubClass	Translation	
						Yes	No
CME	4-159084	06/02/92	Japan	B24D	1/00	X	
CME	7-124861	05/16/95	Japan (translation only)	B24B	37/04	X	
CME	8-64562	03/08/96	Japan	H01L	21/304	X	
CME	WO 93/12911	07/08/93	PCT	B24D	11/00		
CME	WO 94/04599	03/03/94	PCT	C08J	5/14		
CME	WO 94/20264	09/15/94	PCT	B24D	3/28		
CME	WO 94/27780	12/08/94	PCT	B24B	1/4		

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

EXAMINER <i>C. Juckett</i>	Date Considered <i>7-6-02</i>
-------------------------------	----------------------------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Based on Form PTO-FB-A820
(Also form PTO-1449)

Patent and Trademark Office, U.S. Department of Commerce

INFORMATION
DISCLOSURE
CITATION

Atty. Docket No.: 53415USA8C.038 Serial No.: 09/707,269

Applicants(s): L. Charles Hardy and David A. Kaisaki

Filing Date:

Group: 2825

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
	5,104,929	04/14/92	Bilkadi	524	847	
	5,107,626	04/28/92	Mucci	51	298R	
	5,137,542	08/11/92	Buchanan et al.	51	295	
	5,141,790	08/25/92	Calhoun et al.	428	40	
	5,152,917	10/06/92	Pieper et al.	51	295	
	5,174,795	12/29/92	Wiand	51	295	
	5,177,908	01/12/93	Tuttle	51	283	
	5,178,646	01/12/93	Barber, Jr. et al.	51	298	
	5,197,999	03/30/93	Thomas	51	298	
	5,199,227	04/06/93	Ohishi	51	395	
	5,203,884	04/20/93	Buchanan et al.	51	295	
	5,213,591	05/25/93	Celikkaya et al.	51	293	
	5,219,462	06/15/93	Bruxvoort et al.	51	293	
	5,222,329	06/29/93	Yu	51	165.77	
	5,232,875	08/03/93	Tuttle et al.	437	225	
	5,236,472	08/17/93	Kirk et al.	51	298	
	5,254,194	10/19/93	Ott et al.	156	176	
	5,256,170	10/26/93	Harmer et al.	51	293	
	5,257,478	11/02/93	Hyde et al.	51	131.3	
	5,304,223	04/19/94	Pieper et al.	51	293	
	5,307,593	05/03/94	Lucker et al.	51	281SF	
	5,320,706	06/14/94	Blackwell	156	636	
	5,335,453	08/09/94	Baldy et al.	51	67	
	5,342,419	08/30/94	Hibbard	51	308	
	5,366,523	11/22/94	Rowenhorst et al.	51	293	

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	SubClass	Translation	
						Yes	No
	WO 95/01241	01/12/95	PCT	B24D	3/28		
	WO 95/07797	03/23/95	PCT	B24D	11/00		
	WO 95/11773	05/04/95	PCT	B24D	3/28		
	WO 95/19242	07/20/95	PCT	B24D	9/08		
	WO 95/22436	08/24/95	PCT	B24D	11/00		
	WO 96/25270	08/22/96	PCT				
	WO 97/11484	03/27/97	PCT	H01L	21/3105		

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

EXAMINER	<i>C. Luehman</i>	Date Considered	<i>7-6-02</i>
----------	-------------------	-----------------	---------------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Based on Form PTO-FB-A820
(Also form PTO-1449)

Patent and Trademark Office, U.S. Department of Commerce

INFORMATION
DISCLOSURE
CITATION

Atty. Docket No.: 53415USA8C.038

Serial No.: 09/707,269

Applicants(s): L. Charles Hardy and David A. Kaisaki

Filing Date:

Group: 2825

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
CME	5,368,618	11/29/94	Masmar et al.	51	295	
CME	5,368,619	11/29/94	Culler	51	308	
CME	5,370,718	12/06/94	Terazawa et al.	51	295	
CME	5,378,251	01/03/95	Culler et al.	51	295	
CME	5,378,252	01/03/95	Follensbee	51	298	
CME	5,391,210	02/21/95	Bilkadi et al.	51	298	
CME	B1 4,773,920	05/02/95	Chasman et al.	51	295	
CME	5,417,725	05/23/95	Graves	44	388	
CME	5,421,768	06/06/95	Fujiwara et al.	451	283	
CME	5,422,316	06/06/95	Desai et al.	437	228	
CME	5,424,224	06/13/95	Allen et al.	437	10	
CME	5,435,816	07/25/95	Spurgeon et al.	51	295	
CME	5,437,754	08/01/95	Calhoun	156	231	
CME	5,441,598	08/15/95	Yu et al.	156	645.1	
CME	5,445,996	08/29/95	Kodera et al.	437	225	
CME	5,453,312	09/26/95	Haas et al.	428	143	
CME	5,454,844	10/03/95	Hibbard et al.	51	295	
CME	5,470,368	11/28/95	Culler	51	298	
CME	Des. 366,365	01/23/96	Hoopman	D5	4	
CME	5,489,233	02/06/96	Cook et al.	451	41	
CME	5,489,235	02/06/96	Gagliardi et al.	451	527	
CME	5,490,808	02/13/96	Jantschek et al.	451	59	
CME	5,500,273	03/19/96	Holmes et al.	428	147	
CME	5,505,747	04/09/96	Chesley et al.	51	297	
CME	5,527,368	06/18/96	Supkis et al.	51	298	
CME	5,527,423	06/18/96	Neville et al.	156	636.1	
CME	5,575,885	11/19/96	Hirabayashi et al.	156	626.1	
CME	5,578,362	11/26/96	Reinhardt et al.	428	147	
CME	5,607,341	03/04/97	Leach	451	41	
CME	5,607,346	03/04/97	Wilson et al.	451	540	
CME	5,607,488	03/04/97	Wiand	51	295	
CME	5,609,517	03/11/97	Lofaro	451	529	
CME	5,622,875	04/22/97	Lawrence	438	691	

FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	SubClass	Translation
					Yes No
CME	WO 97/43087	11/20/97	PCT		
CME	WO 98/26025	06/18/98	PCT		

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

EXAMINER	Date Considered
C. Juchart	7-6-02

* Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION		Atty. Docket No.: 53415USA80		Serial No.: 09/707269			
		Applicants(s): L. Charles Hardy and David A. Kaisaki					
		Filing Date:		Group: 2825			
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
CME		5,624,303	04/29/97	Robinson	451	285	
CME		5,643,044	07/01/97	Lund	451	5	
CME		5,649,855	07/22/97	Chikaki	451	290	
CME		5,692,950	12/02/97	Rutherford et al.	451	552	
CME		5,700,383	12/23/97	Feller et al.	216	88	
CME		5,709,588	01/20/98	Muroyama	451	41	
CME		5,770,095	06/23/98	Sasaki et al.	216	38	
CME		5,780,358	07/14/98	Zhou et al.	438	645	
CME		5,823,855	10/20/98	Robinson	451	41	
CME		5,827,637	10/27/98	Uchida et al.	430	505	
CME		5,840,629	11/24/98	Carpio	438	692	
CME		5,897,375	09/99	Watts et al.	438	693	
CME		5,897,426	04/27/99	Somekh	451	41	
CME		5,980,775	11/09/99	Grumbine et al.	252	79.1	
CME		5,954,997	09/99	Kaufman et al.	252	79.1	
CME		6,066,028	05/23/00	Cheng et al.	451	28	
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	SubClass	Translation Yes No
CME		0 845 512 A1	06/03/98	EPO	—	—	
CME		0 846 742 A2	06/10/98	EPO	—	—	
CME		0 896 042 A1	02/10/99	EPO	—	—	
CME		0 747 939 A2	12/11/96	EPO	—	—	
CME		0 913 442 A2	05/06/99	EPO	—	—	
OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)							
CME		"Acid Cutting and Acid Polishing of Copper Crystals" <u>The Review of Scientific Instruments</u> , Volume 32 Number 5. pp. 559-562.					
CME		Hayashi et al., "A New Abrasive-Free, Chemical-Mechanical-Polishing Technique for Aluminum Metallization of ULSI Devices", International Electron Devices Meeting, 1992, San Francisco, Dec. 13-16, 1992.					
EXAMINER				Date Considered			
<i>C. Jankart</i>				<i>7-6-02</i>			
<small>*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Based on Form PTO-FB-A820
(Also form PTO-1449)

Patent and Trademark Office, U.S. Department of Commerce